

CFC Amli - 6/11/86



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES

ORIGINAL  
(Red)

# Preliminary Assessment

FOR

UGI CORPORATION GAS MANUFACTURING PLANT  
PA# 653

No apparent contamination  
SW intake 3000' ft downstream  
on Susquehanna River (same side)  
rec. L-M SI  
MSW  
6/11/86

SI-Low

Steelton Borough  
Dauphin County  
Pennsylvania

UGI CORPORATION GAS MANUFACTURING PLANT

BOROUGH OF STEELTON  
DAUPHIN COUNTY

PA 0653

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PRELIMINARY ASSESSMENT

Narrative Summary, Preliminary Assessment and Field Trip  
Summary Report

Prepared By

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Division of Emergency & Remedial Response  
Bureau of Waste Management  
625 Cherry Street  
Reading, Pennsylvania 19602  
Telephone: (215) 378-4454

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## PRELIMINARY ASSESSMENT

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NARRATIVE SUMMARY


The UGI Corp. gas manufacturing site was originally operated by a gas manufacturer that utilized two processes for producing gas for domestic use. The two processes were the coke oven gas (COG) and the catalytically cracked gas (CCG), both described in more detail in Appendix I. The original plant (purified coke oven gas produced by the Bethlehem Steel coke ovens) operated from 1910 to 1955 at which time natural gas was the predominant gas distributed for domestic use.

During the site visit on April 17, 1986, I was accompanied by Mr. James Heintz, Division Engineer, on a walking tour of the site. Although most of the wastes (sludges) generated at this facility were disposed off site, some could have been buried on site, as was the practice at many gas manufacturing plants 60 to 70 years ago. However, no leachates, erosion problems or environmental degradation of any type was observed.

A thorough search of the files in the Harrisburg Regional Office (Region III) in the Bureaus of Water Quality Management, Community Environmental Control, and Waste Management revealed that no departmental records exist for this site.



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 <b>POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT</b>		<b>I. IDENTIFICATION</b>	
		01 STATE PA	02 SITE NUMBER 0653
<b>II. SITE NAME AND LOCATION</b>			
01 SITE NAME (Legal, common, or descriptive name of site) UGI Corp. Gas Mfg. Plant		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Franklin Street, Steelton	
03 CITY Borough of Steelton, Swatara Twp.	04 STATE PA	05 ZIP CODE 17092	06 COUNTY Dauphin
07 COUNTY CODE 22	08 CONG DIST 926		
09 COORDINATES LATITUDE 40 13 54 .0		LONGITUDE 076 51 26 .0	
10 DIRECTIONS TO SITE (Starting from nearest public road) SW on Franklin Street from Main Street for 0.25 miles in the Borough of Steelton			
<b>III. RESPONSIBLE PARTIES</b>			
01 OWNER (If known) UGI Corp.		02 STREET (Business, mailing, residential) 225 Morgantown Road, Reading, PA 19611	
03 CITY Reading, PA	04 STATE PA	05 ZIP CODE 19611	06 TELEPHONE NUMBER 215 375-4441 Ext. 362
07 OPERATOR (If known and different from owner) UGI Corp.		08 STREET (Business, mailing, residential) 225 Morgantown Road, Reading, PA 19611	
09 CITY Reading, PA	10 STATE PA	11 ZIP CODE 19611	12 TELEPHONE NUMBER (219) 375-4441 Ext. 362
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN			
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: ____/____/____ MONTH DAY YEAR <input checked="" type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: 6 / 11 / 81 MONTH DAY YEAR <input type="checkbox"/> C. NONE			
<b>IV. CHARACTERIZATION OF POTENTIAL HAZARD</b>			
01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES   DATE 4 / 17 / 86 MONTH DAY YEAR <input type="checkbox"/> NO		BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____	
02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION 1910   Present   UNKNOWN BEGINNING YEAR   ENDING YEAR	
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED Wood chips combined with iron oxide were mixed in bins and gas from a gasification process was purified to remove sulfides and cyanide. The process was known as water cracking.			
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION Wood chips and iron filings with spent oxides. Most of wastes were disposed of off site.			
<b>V. PRIORITY ASSESSMENT</b>			
01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents) <input type="checkbox"/> A. HIGH (Inspection required promptly) <input type="checkbox"/> B. MEDIUM (Inspection required) <input type="checkbox"/> C. LOW (Inspect on time available basis) <input checked="" type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			
<b>VI. INFORMATION AVAILABLE FROM</b>			
01 CONTACT James Heintz		02 OF (Agency Organization) Division Engineer	
03 TELEPHONE NUMBER 215 375-4441 ext 362			
04 PERSON RESPONSIBLE FOR ASSESSMENT Ronald F. Klinikowski		05 AGENCY PA DER	06 ORGANIZATION Superfund
07 TELEPHONE NUMBER 215 378-4454		08 DATE 5 / 6 / 86 MONTH DAY YEAR	

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Name of Site UGI Corp. Gas Manufacturing Plant, Steelton

EPA Case Number PA 0653

- If Yes: a) Note EPA I.D. No. PAD 980538821  
b) Is the site a generator, storer, treater or disposer of hazardous waste? (CIRCLE ONE)

- III. Please list site contacts and accompanying inspectors; include name, title and phone numbers.

Mr. James Heintz, Division Engineer, UGI - (215)375-4441 Ext. 362

Mr. Paul Garber, President (Property Owner Adjacent to Site)

522 S. Wood Street, Middletown, PA (717)944-1727

- A. Population within 1000 ft. of the site is (CHECK ONE)

1. 0-10 people
2. 10-100 people
- ③. greater than 100 people

- B. List surrounding land use: (woodlot, agricultural, playground, industrial, etc.)

North: Municipal Sewage Plant

South: Industrial

East: Commercial - Residential

West: Susquehanna River



FIELD TRIP SUMMARY REPORT

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C. Water supply for area. (CHECK ONE)

1. Surface intakes (locate on attached map) (b) (9)
  2. Municipal wells (locate on attached map)
  3. Domestic wells: Public Water - Steelton  
Municipal Waterworks, Susquehanna River
- a. Approximate number within 1/4 mile. \_\_\_\_\_
- b. Locate a minimum of 3 wells on attached map and list below:

Property owner \_\_\_\_\_

Address \_\_\_\_\_

Phone no. \_\_\_\_\_

Well records YES \_\_\_\_\_ NO \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_

Odor problems YES \_\_\_\_\_ NO \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_

Taste problems YES \_\_\_\_\_ NO \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_ YES \_\_\_\_\_ NO \_\_\_\_\_

- c. If odor or taste problems are reported please elaborate:

\_\_\_\_\_

\_\_\_\_\_

D. Are surface or subsurface, (leachate), drainage areas from site apparent? YES \_\_\_\_\_ NO X. If yes:

1. Were unusual odors or stains noted? YES \_\_\_\_\_ NO \_\_\_\_\_

2. Was stressed vegetation noted? YES \_\_\_\_\_ NO \_\_\_\_\_

- a. If yes please note area on map.

E. Are streams or receiving waters adjacent to site? YES X NO \_\_\_\_\_  
If yes, list observations: (i.e. - change in benthic community, change in plant density/diversity, change in color, siltation, etc.).

Susquehanna River - Bank to streambed - No change apparent to flora  
along streambank.

\_\_\_\_\_

F. Site topography: (i.e. - plateau, strip mine ravines, etc.).

Flat - Floodplain

\_\_\_\_\_

G. Other observations: (i.e. - erosion, located in floodplain, etc.).

No other significant sitings observed.

\_\_\_\_\_

V. Were photographs taken? YES \_\_\_\_\_ NO X  
If yes: Who has custody of photos? \_\_\_\_\_

Phone No.: \_\_\_\_\_

VII. Please attach pertinent copies of reports or data reviewed by inspector: (i.e. - State monitoring data, consultant reports, etc.).

Weather Conditions: Cloudy with rain



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**RECEIVED**

June 9, 1981

JUN 11 1981

**EMPLOYEE RELS.**

United States Environmental Protection Agency  
Region 3  
Sites Notification  
Philadelphia, PA 19106

Re: Protective Filing of EPA Notification of  
Hazardous Waste Site Forms

Gentlemen:

Enclosed for filing are 25 EPA Notification of Hazardous Waste Site forms completed in accordance with Section 103(c) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("Superfund") and the Agency's regulations published April 15, 1981 at 46 Federal Register 22144 and following. For the reasons described below, the enclosed forms are protective filings, intended both to preserve our rights and fully inform the Agency. The fact of filing does not constitute an admission of hazardous waste handling, an admission of ownership or operation of a hazardous waste facility or a waiver of any applicable exemption or defense.

**Background and  
Scope of Information**

As relevant to the reported sites, UGI Corporation has two operating divisions: the Gas Utility Division and the Electric Utility Division. The Gas Utility Division distributes natural gas to approximately 201,000 customers in 13 eastern and central counties of Pennsylvania; the Electric Utility Division serves approximately 55,000 electric customers in two northeastern counties of Pennsylvania.

In the process of researching the need to file a notice, several persons within our company recalled manufactured gas plants which were operated many years ago, prior to conversion to natural gas distribution. In the short time provided for response, from the available records and limited recollection of persons within our company, we were not able to determine (1) the constituents of the waste stream from manufactured gas production; (2) whether the waste stream was hazardous waste, as defined for purposes of the notice requirement; (3) whether the waste, if still existing, would today be considered characteristically hazardous under similar definitions; (4) whether the waste stream from the manufactured gas process would be exempt, in whole or in part under the Superfund synthetic gas, ash or petroleum exclusions; or (5) whether notification would not be required for other reasons.



Despite the uncertainties mentioned above, after weighing the reliability of the information learned, the potential usefulness of it to the Agency and the potential penalties for even technical noncompliance, we have elected, out of precaution, to file the forms, provide the required data to the extent of reliable available information and explain the manufactured gas processes involved.

The responses provided represent the results of diligent efforts by persons in the company with experience or knowledge of our former manufactured gas plant operations to list potentially reportable plants and sites owned or operated by UGI. However, particularly because the operations occurred in the distant past, those persons cannot be certain that all plants or sites of the same or similar nature have been remembered. In fact, beyond sheer speculation, information as to manufactured plants that were in existence many decades ago or were owned or operated by former subsidiaries or entities are beyond their recollection.

#### Manufactured Gas Process and Waste Stream

To assist review of the forms, we have included in Appendix I a summary of what we have learned concerning the types of manufactured gas processes used at the involved plants. The process descriptions are taken from the Gaseous Fuels chapter of the Gas Engineers Handbook (The Industrial Press, N.Y., 1965, Lib. Cong. Cat. No. 65-17328). In Item E of each form, the type of process is indicated by the code shown in Appendix I.

The same chapter of the Handbook also indicates the constituents of certain types of manufactured gas before purification. To our knowledge there were two primary waste classes: tar (from removal of aromatic hydrocarbons) and spent filter material (wood chips impregnated with iron filings, resulting in certain spent oxides). The tars were usually sold to governmental authorities and private companies for common road building and roadway repair materials; the spent filter material was covered with earth at or adjacent to the plant site to prevent combustion.

#### No Known Significant Releases

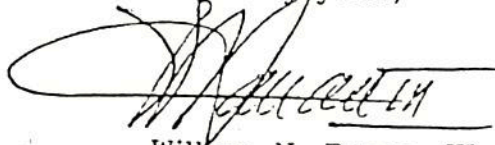
With regard to releases into the environment, we have indicated "unknown" on the forms not only because persons describing our manufactured gas operations did not have adequate recollection of the details of even incidental spillage, but because checking the "known," "likely" or "suspected" release boxes could be misleading, without further explanation. To provide context, since termination of manufactured gas operation, in most cases well over 20 years ago, we have no knowledge of even minor spillage or other releases and no knowledge of personal injury or property or environmental damage related to the manufactured gas plant wastes. Over the last 100 years since the beginning of

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manufactured gas operations at many of these plants, there probably were small fires involving spent filter material and, thus, releases of combustible products into the air. It is also possible that air or rainwater could have passed through the earth covering and come into contact with the spent filter material; while it is not known whether this occurred, it is believed that no significant environmental damage would have resulted, either then or now.

We trust this additional information will be helpful in reviewing the enclosed forms.

Very truly yours,

A handwritten signature in black ink, appearing to read "W. N. Farran, III", written over a horizontal line.

William N. Farran, III  
Energy Counsel

WNF:db

Enclosures



## APPENDIX I

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### Basic Description of Manufactured Gas Processes

CWG (Carbureted water gas) - consists of water gas as a base which has been carbureted or enriched with thermally cracked oil, natural gas or liquefied petroleum gas. In addition to considerable percentages of CO and H<sub>2</sub>, there are varying amounts of unsaturated hydrocarbons (illuminants) and saturated hydrocarbons.

COG (Coke oven gas) - is made in by-product coke ovens by the distillation of the volatile matter from the coal. Coke is the primary product; gas, tar and various chemicals are recovered in the process. The gas produced is usually around 500 BTU per cubic foot with combustible constituents consisting of hydrogen, methane, ethane, carbon monoxide and illuminants. At the end of the coking period the gas is primarily hydrogen; at the beginning it is high in methane. A low temperature coking process will produce a high BTU gas, as there is little breakdown of saturated hydrocarbons. [Note: The coke used at the indicated plants was not manufactured by our company; it was purchased from steel companies.]

CCG (Catalytically cracked gas) - is made by passing the gas or light hydrocarbon liquid to be cracked over a nickel oxide catalyst maintained at a selected temperature by external heat. Regulated amounts of steam may be introduced. The gas is composed of CO and H<sub>2</sub> with appreciable amounts of N<sub>2</sub> and CO<sub>2</sub>.

### Other Definitions

Water gas - is made by passing steam over hot coke, coal or other carbonaceous material and consists essentially of carbon monoxide and hydrogen with varying amounts of carbon dioxide and nitrogen. It is similar to catalytic cracked gas and synthesis gas.

Coal gas - is made by the distillation of the volatile matter from coal with some steaming of the coke to produce water gas. This type of gas is generated in so-called retorts. It is high in hydrogen and methane, with lesser amounts of carbon monoxide and illuminants.

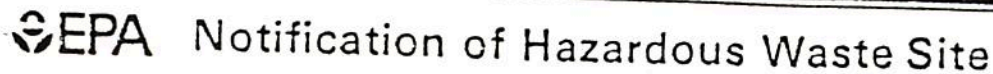
Thermally cracked gas - is made by decomposition of natural gas, liquefied petroleum gases or gasoline. It is high in saturated and unsaturated hydrocarbons with some hydrogen.

Oil gases - are made by thermal decomposition of oils which vary from naphtha to heavy residuum high carbon oils. Gases with heating values that vary from 300 to 1100 BTU per cubic foot are made. The lower BTU gases are high in hydrogen and methane; the high BTU gases are high in illuminants and saturated hydrocarbons.



Reformed gases - are usually made by thermally cracking natural gas, propane, butane or refining oil gas in water gas generators or similar special equipment. The resultant gas varies appreciably in composition depending upon the equipment used and the percentage of the gas being cracked. Reformed gas contains hydrogen, carbon monoxide and saturated and unsaturated hydrocarbons.

Source: Gaseous Fuels Chapter of Gas Engineers Handbook  
(The Industrial Press, NY, NY, 1965; Lib. Cong.  
Cat. No. 65-17328).



This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

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Enter the name and address of the person or organization required to notify.

Name UGI Corporation

Street      Box 858

CITY Valley Forge

State PA

Zip Code 19482

Enter the common name (if known) and actual location of the site.

Name of Site

Street Main and Franklin Streets

City Steelton

County Dauphin

State PA

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Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title) Farran, William N., III, Energy Counsel

Phone 215/337-1000

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

approximately

From (Year) 1910

To (Year) 1955

**Option 1:** Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item 1—Description of Site.

**General Type of Waste:**  
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

Source of Waste:  
Place an X in the appropriate  
boxes.

Option 2: This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

**Specific Type of Waste:**

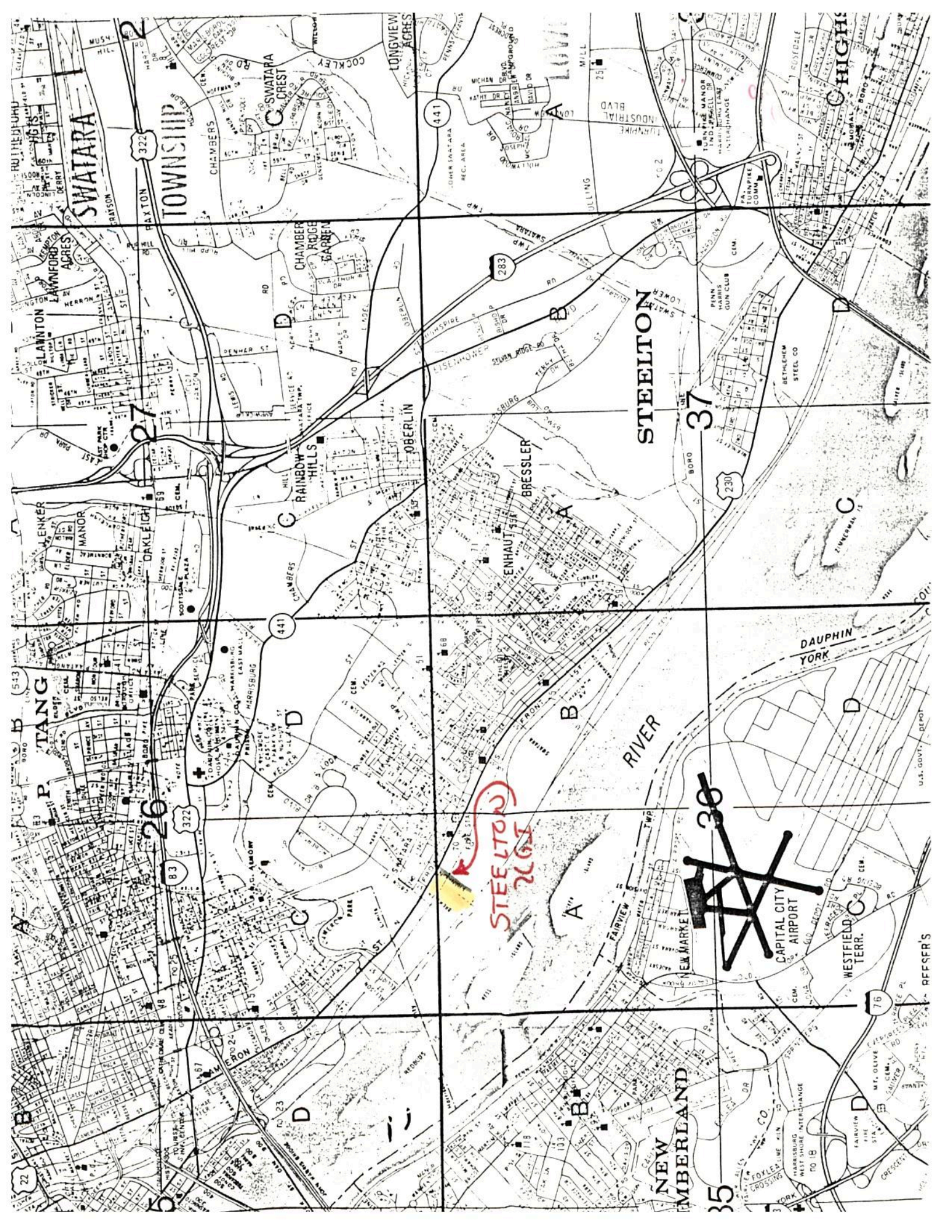
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.

1. ☐ Organics  
2. ☐ Inorganics  
3. ☐ Solvents  
4. ☐ Pesticides  
5. ☐ Heavy metals  
6. ☐ Acids  
7. ☐ Bases  
8. ☐ PCBs  
9. ☐ Mixed Municipal Waste  
10. ☐ Unknown  
11. ☒ Other (Specify)  
COG and CCG  
manufactured gas  
process waste

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☐ Plating, Polishing
10. ☐ Military Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☒ Utility Companies
14. ☐ Sanitary Refuse
15. ☐ Photofinish
16. ☐ Lab/Hospital
17. ☐ Unknown
18. ☐ Other (Specify)

The image shows three pages of a lined notebook, arranged horizontally. Each page is white with horizontal blue ruling lines. The pages are blank, with no handwriting or other markings. The notebook's binding is visible at the top and bottom edges of the pages.







COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES  
TOPOGRAPHIC AND GEOLOGIC SURVEY

TE 81 5664 IV SE  
(HARRISBURG EAST)

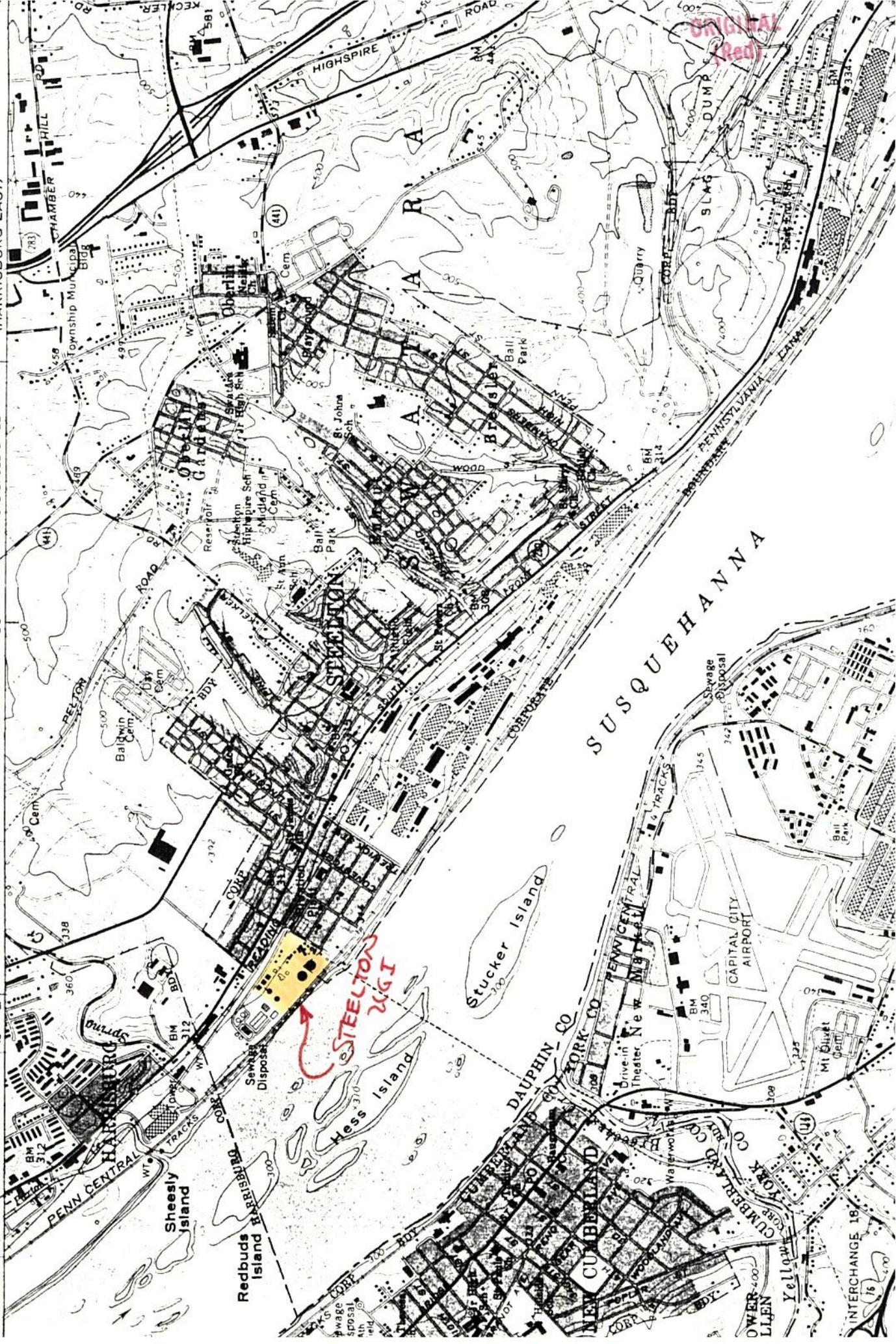
42 MI. TO U.S. 322 & 422

344 50'

43

341 (230) 1.3 MI. TO U.S. 22 342000m.E

0"









PUBLIC UTILITY  
 EIB-452  
 ITEM-50  
 WM-2513  
 M. O. A. U.

THE HARRISBURG GAS DIVISION  
 OF U. I. CO.  
 "STEELTON PLANT"  
 SWATARA TWR & STEELTON DAUPHIN CO. PA.  
 SEPT. 14, 1924  
 SCALE 1" = 80'

FLOOD NOTE: These structures located in  
 WATER IN 1922

